

WHAT IS CLAIMED IS:

1. A method of applying pieces of material to objects, the method comprising:

providing a material supply strip and at least one applicator device capable of applying material from said supply strip to objects, said supply strip initially including a backing having first and second opposing surfaces and pieces of material removably arranged on both of the first and second surfaces;

applying at least one piece of material from the first surface of the backing to at least one object with said at least one applicator device; and

applying at least one piece of material from the second surface of the backing to at least one object with said at least one applicator device.

2. The method of claim 1, wherein said at least one applicator device includes at least one application station configured to apply pieces of material to objects, and wherein the applying of said at least one piece of material from the first surface and the applying of said at least one piece of material from the second surface includes passing the supply strip through said at least one application station.

3. The method of claim 2, wherein said at least one application station includes first and second application stations, and wherein the applying of said at

Sub A11
05725.0533-00000

least one piece of material from the first surface includes passing the supply strip through the first application station, and the applying of said at least one piece of material from the second surface includes passing the supply strip through the second application station.

4. The method of claim 3, wherein the supply strip is passed through the second application station after the supply strip is passed through the first application station.

5. The method of claim 4, wherein said at least one applicator device includes first and second sections, the first surface of the supply strip being oriented to face the first section and the second surface being oriented to face the second section when the supply strip is being passed through the first application station, and wherein the method further comprises re-orienting the supply strip so that the second surface faces the first section and the first surface faces the second section when the supply strip is being passed through the second application station.

6. The method of claim 5, wherein the re-orienting of the supply strip includes twisting a first part of the supply strip approximately 180 degrees with respect to a second part of the supply strip.

7. The method of claim 2, wherein the supply strip is passed through a particular application station a first time to apply the at least one piece of material from the first surface, and wherein the supply strip is passed through the particular application station a second time to apply the at least one piece of material from the second surface.

8. The method of claim 1, further comprising winding the supply strip into a roll on a spool after at least one of the applying of said at least one piece of material from the first surface and the applying of said at least one piece of material from the second surface.

9. The method of claim 1, wherein the supply strip is initially in the form of a roll on a spool, and wherein the method further comprises feeding the supply strip from the spool.

10. The method of claim 9, wherein the method further comprises winding the supply strip into a roll on a second spool after at least one of the applying of said at least one piece of material from the first surface and the applying of said at least one piece of material from the second surface.

11. The method of claim 7, wherein the supply strip is initially in the form

from the objects of the second group.

14. The method of claim 1, wherein at least one piece of material from the first surface and at least one piece of material from the second surface are applied to a group of common objects.

15. The method of claim 1, wherein at least one piece of material on the first surface is substantially the same as at least one piece of material on the second surface.

16. The method of claim 1, wherein at least one piece of material on the first surface is different from at least one piece of material on the second surface.

17. The method of claim 13, wherein the pieces of material on the first surface are substantially the same as the pieces of material on the second surface.

18. The method of claim 13, wherein the pieces of material on the first surface are different from the pieces of material on the second surface.

19. The method of claim 14, wherein the pieces of material on the first surface are substantially the same as the pieces of material on the second surface.

20. The method of claim 14, wherein the pieces of material on the first surface are different from the pieces of material on the second surface.

21. The method of claim 1, wherein the pieces of material are labels.

22. The method of claim 21, wherein the labels are self-adhesive.

23. The method of claim 21, wherein the labels include polyethylene terephthalate.

24. The method of claim 21, wherein the labels have a thickness ranging from about 10 microns to about 40 microns.

25. The method of claim 24, wherein the labels have a thickness ranging from about 25 microns to about 36 microns.

26. The method of claim 1, wherein the backing includes material chosen from at least one of paper and thermoplastic, and wherein the first and second surfaces of the backing are coated with a layer of silicone.

27. The method of claim 21, wherein the labels and the backing are


formed from substantially the same material.

28. The method of claim 1, wherein the backing includes polyethylene terephthalate.

29. The method of claim 1, wherein the backing has a thickness ranging from about 10 microns to about 40 microns.

30. The method of claim 29, wherein the backing has a thickness ranging from about 23 microns to about 36 microns.

31. The method of claim 1, wherein the supply strip has a thickness ranging from about 60 microns to about 150 microns.

32. The method of claim 31, wherein the supply strip has a thickness ranging from about 95 microns to about 140 microns.

33. The method of claim 1, wherein the pieces of material include a layer of adhesive removably adhering the pieces of material to the first and second surfaces of the backing, said layer of adhesive having a thickness ranging from about 10 microns to about 20 microns.

34. The method of claim 1, wherein the objects are bottles.

35. The method of claim 21, wherein the labels are substantially transparent.

36. A material supply strip for use in an applicator device configured to apply pieces of material to objects, the supply strip comprising:

a backing including first and second surfaces substantially opposite to one another; and

pieces of material removably arranged on the first and second surfaces of the backing, wherein the supply strip is configured to be fed into the applicator device so that the pieces of material on the backing can be applied to objects with the applicator device.

37. The supply strip of claim 36, wherein the pieces of material are self-adhesive labels.

38. The supply strip of claim 37, wherein each label on the first surface is positioned substantially opposite to a corresponding label on the second surface.

39. The supply strip of claim 37, wherein the labels on the first and

second surfaces are spaced apart from one another so that the first and second surfaces include spaces between the labels.

40. The supply strip of claim 39, wherein the labels on the first surface are positioned substantially opposite to the spaces between the labels on the second surface, and wherein the labels on the second surface are positioned substantially opposite to the spaces between the labels on the first surface.

41. The supply strip of claim 37, wherein a bottom portion of the labels on the first surface are positioned substantially opposite to a top portion of the labels on the second surface, and a top portion of the labels on the first surface are positioned substantially opposite to a bottom portion of the labels on the second surface.

42. The supply strip of claim 40, wherein the labels on the first surface and the labels on the second surface are substantially the same, and wherein a bottom portion of the labels on the first surface are positioned substantially opposite to a top portion of the labels on the second surface, and a top portion of the labels on the first surface are positioned substantially opposite to a bottom portion of the labels on the second surface.

43. The supply strip of claim 42, wherein the labels are trapezoidal shaped.

44. The supply strip of claim 37, wherein the labels on the first surface include labeling information designed for a first face of an object, and wherein the labels on the second surface include labeling information designed for a second face of the object.

45. The supply strip of claim 37, wherein the labels on the first surface are substantially the same as the labels on the second surface.

46. The supply strip of claim 37, wherein the labels on the first surface are different from the labels on the second surface.

47. The supply strip of claim 37, wherein the labels include polyethylene terephthalate.

48. The supply strip of claim 37, wherein the labels have a thickness ranging from about 10 microns to about 40 microns.

49. The supply strip of claim 48, wherein the labels have a thickness

ranging from about 25 microns to about 36 microns.

50. The supply strip of claim 37, wherein the backing includes material chosen from at least one of paper and thermoplastic, and wherein the first and second surfaces of the backing are coated with a layer of silicone.

51. The supply strip of claim 37, wherein the labels and the backing are formed from substantially the same material.

52. The supply strip of claim 51, wherein the material forming the labels and the backing includes polyethylene terephthalate.

53. The supply strip of claim 36, wherein the backing has a thickness ranging from about 10 microns to about 40 microns.

54. The supply strip of claim 53, wherein the backing has a thickness ranging from about 23 microns to about 36 microns.

55. The supply strip of claim 36, wherein the initial supply strip has a thickness ranging from about 60 microns to about 150 microns.

56. The supply strip of claim 55, wherein the initial supply strip has a

57. ~~The supply strip of claim 36, wherein the pieces of material include a~~

58. An application system for applying pieces of material to objects, the

a material supply strip initially including a backing having first and second

at least one applicator device configured to apply pieces of material from at

59. The system of claim 58, wherein said at least one applicator device

60. The system of claim 59, wherein said at least one applicator device

includes a first spool configured to feed a roll of the supply strip to the at least one application station and a second spool configured to receive the supply strip after the pieces of material are applied to objects.

61. The system of claim 60, wherein the at least one application station includes first and second application stations, the first station being configured to apply pieces of material from the first surface to objects, and the second station being configured to apply pieces of material from the second surface to objects.

62. The system of claim 61, wherein said at least one applicator device further includes a plurality of guide rollers, and wherein the guide rollers are configured to guide the supply strip along a first path from the first spool through the first application station for applying pieces of material from the first surface to a first group of objects, along a second path from the first application station through the second application station for applying pieces of material from the second surface to a second group of objects, and along a third path from the second application station onto the second spool.

63. The system of claim 62, wherein said at least one applicator device further comprises a re-orienting device for re-orienting the supply strip after the strip passes through the first application station, said re-orienting device being

configured to twist a first part of the supply strip approximately 180 degrees with respect to a second part of the supply strip so that the supply strip is oriented in a predetermined fashion when the supply strip passes through the second application station.

64. The system of claim 60, wherein said at least one applicator device further comprises:

at least one strip pushing device for pushing the supply strip from the first spool to the at least one application station; and

at least one strip pulling device for pulling the supply strip from the at least one application station to the second spool.

65. The system of claim 59, wherein the at least one application station includes an application plate having a sharp edge, and wherein the supply strip is passed over said sharp edge of the application plate to apply the pieces of material to the objects, said objects being moved with respect to the supply strip.

66. The system of claim 58, wherein the pieces of material are labels.

67. The system of claim 66, wherein the labels on the first surface of the supply strip are substantially the same as the labels on the second surface of the

supply strip.

68. The system of claim 66, wherein the labels on the first surface of the supply strip are different from the labels on the second surface of the supply strip.

69. The system of claim 68, wherein the labels on the first surface include labeling information designed for a first face of an object, and wherein the labels on the second surface include labeling information designed for a second face of the object.

70. The system of claim 68, wherein the labels on the first surface include labeling information designed for a first group of objects, and wherein the labels on the second surface include labeling information designed for a second group of objects.

71. The supply strip of claim 37, wherein the labels on the first surface include labeling information designed for a first group of objects, and wherein the labels on the second surface include labeling information designed for a second group of objects.

72. The method of claim 1, wherein the applicator device used for the

applying of the at least one piece of material from the first surface is also used for the applying of the at least one piece of material from the second surface.

73. The method of claim 1, wherein a first applicator device is used for the applying of the at least one piece of material from the first surface and a second applicator device is used for the applying of the at least one piece of material from the second surface.

74. The system of claim 58, wherein said at least one applicator device includes a single applicator device configured to apply pieces of material from both the first and second surfaces of the backing.

75. The system of claim 58, wherein said at least one applicator device includes a first applicator device configured to apply pieces of material from the first surface and a second applicator device configured to apply pieces of material from the second surface.

Add A2